DEPARTMENT OF HEALTH & HUMAN SERVICES Centers for Disease Control and Prevention (CDC) Atlanta, Georgia 30333

Tick-Borne Rickettsial Disease Case Report



Use for: Spotted fever rickettsiosis (SFR) including Rocky Mountain spotted fever (RMSF), Ehrlichiosis (E. chaffeensis, E. ewingii, & undet.), and Anaplasmosis (A. phagocytophilum & undet.). Visit http://www.cdc.gov and use "Search" for complete Case Definition(s) or

Form Approved OMB 0920-0009 visit the disease web site(s) for a fillable/downloadable PDF version of this Case Report. CDC# Patient's Date submitted: _____(9-12) ____ (mm/dd/yyyy) name: (7-8) Physician's Phone name: Address: no.: (number, street) NETSS ID No.: (if reported) City: Case ID (13-18) Site (19-21) State (22-23) 4. Sex: (60) 1. State of residence: 2. County of residence: (26-50) 3. Zip code: (51-59) Unk Male 9 Postal ahrv: History of travel outside county of residence within 30 days of onset of symptoms?: 1 YES Female NO Unk 9 5. Date of Yes 6. Race: 7. Hispanic American Indian White Pacific Islander ethnicity: 2 birth: Alaskan Native No (mm/dd/yyyy) Black Not specified Asian (70)(65-68) (61-62) (63-64) Unk SFR (including RMSF) Anaplasmosis - A. phagocytophilum 5 Ehrlichiosis/Anaplasmosis -8. Indicate Disease (Presumed) To Be Reported: (71) Undetermined Ehrlichiosis - E. chaffeensis 4 Ehrlichiosis - E. ewingii 9. Was a clinically compatible illness present? If there is no presence of clinical illness, then this is not a case. (72)10. Date of Onset of Symptoms: Clinical evidence - fever and one or more of the following: rash (primarily SFR), headache, YES NO Unk myalgia, anemia, leukopenia (Ehrlich. & Anaplas.), thrombocytopenia, or elevated hepatic transaminases. (mm/dd/yyyy) Eschar (aka tache noire) or black, necrotic area around site of known/possible tick bite present? YES 2 NO Unk 11. Was an underlying immunosuppressive condition present? (81) 12. Specify any life-threatening complications in the clinical course of illness: (82) YES 2 NO Adult respiratory distress syndrome (ARDS) Meningitis/encephalitis Specify condition(s): Disseminated intravascular coagulopathy (DIC) Renal failure None Other: 13. Was the patient hospitalized because of this illness? (83) 14. Did the patient die because of this illness? (92) (If yes, date) YES 2 NO 9 Unk (84-85) (86-87) (88-91) (93-94) (95-96) (97-100) 15. Name of City: _ Zip: laboratory: State: Below, indicate Y (Yes) or N (No), ONLY if the test or procedure was performed. Lack of selection indicates that the test or procedure was not performed. COLLECTION DATE (mm/dd/yyyy) COLLECTION DATE (mm/dd/yyyy) 17. Other Diagnostic Test? 16. Serologic Positive? Serology 1 Serology 2* (Use#16, S1 for collection date) (101-2) (103-4) (105-8) (109-10) (111-12) (113-16) **Tests** Titer Positive? Positive? Titer **PCR** YES 2 NO (133 Morulae visualization* YES 2 NO (134 IFA - IgG YES 2 NO (117) YES 2 NO (118) YES NO (135 Immunostain 2 IFA - IgM YES NO (119) YES NO (120) Culture YES NO (136) (121-130 Other * Visualization of morulae not applicable for SFR. YES 2 NO (131) YES 2 NO (132) * Was there a fourfold change in antibody titer between the two serum specimens? 1 YES 2 NO (137) 18. Classify case BASED ON the CDC case definition (see criteria below): State Health Department Official who reviewed this report: SFR (including RMSF) Ehrlichiosis -E. chaffeensis Name: **CONFIRMED** Anaplasmosis -A. phagocytophilum 4 Ehrlichiosis - E.ewingii Ehrlichiosis/Anaplasmosis - Undetermined **PROBABLE** Title: Date: (mm/dd/yyyy)

COMMENTS:

Confirmed SFR (including RMSF): A clinically compatible case with evidence of a fourfold change in IgG antibody titer reactive with Rickettsia rickettsii or other SFR antigens by IFA between paired serum specimens, one taken during the first week of illness and a second 2-4 weeks later, OR detection of R. rickettsial or other SFR DNA in a clinical specimen via amplification of a specific target by PCR assay, OR demonstration of SFR antigen in a biopsylautopsy specimen by IHC, OR isolation of *R. rickettsia* or other SFR species from a clinical specimen in cell culture.

Probable SFR (including RMSF): A clinically compatible case with evidence of elevated IgG or IgM antibody reactive with *R. rickettsii* or other SFR antigens by IFA, enzyme-linked immunosorbent assay (ELISA), dot-ELISA, or latex agglutination (CDC uses an IFA IgG cutoff of ≥1:64 and does not use IgM test results as independent diagnostic support criteria.).

Note: Current commercially available ELISA tests cannot evaluate changes in antibody titer. IgM tests may be unreliable because they lack specificity. IgM antibody may persist for lengthy periods of time. When sera demonstrate elevated antibody responses to multiple infectious agents among rickettsial species, and between ehrlichial and anaplasmal species, the greater antibody response is generally directed at the actual agent involved.

Confirmed Ehrlichiosis/Anaplasmosis: A clinically compatible case with evidence of a fourful change in IgG antibody titer reactive with Ehrlichia chaffeensis or Anaplasma phagocytophilum antigen by IFA between paired serum specimens (one taken during the first week of illness and a second 2-4 weeks later) OR detection of *E. chaffeensis* or *A. phagocytophilum* DNA in a clinical specimen via amplification of a specific target by PCR assay, OR demonstration of ehrlichial or anaplasmal antigen in a biospy/autopsy specimen by IHC, OR isolation of E. chaffeensis or A. phagocytophilum from a clinical specimen in cell culture

Probable Ehrlichiosis/Anaplasmosis: A clinically compatible case with evidence of elevated IgG or IgM antibody reactive with *E. chaffeensis* or *A. phagocytophilum* antigen by IFA, enzyme-linked immunosorbent assay (ELISA), dot-ELISA, or assays in other formats (CDC uses an IFA IgG cutoff of ≥1:64 and does not use IgM or macrophages (Ehrlichiosis) or in the cytoplasm of neutrophils or eosinophils (Anaplasmosis) by microscopic examination. test results as independent diagnostic support criteria.), OR identification of morulae in the cytoplasm of monocytes

Public reporting burden of this collection of information is estimated to average 10 minutes per response. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Please send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to CDC/ATSDR Reports Clearance Officer; 1600 Clifton Rd., NE (MS D-74); Atlanta, GA 30333; ATTN: PRA (0920-0009).

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Form Approved OMB 0920-0009

| | | | Physi name | submitted: cian's (5-6) : S ID No.: (if reported) | (7-8) | (9-12) (mm/dd/yyyy) Case ID (13-18) | Phone n0.: Site (19-21) State (22-23) |
|---|--|-------------------------------|---------------|---|--------|--|--|
| 1. State of residence: Postal abrv: (24-25) (24-25) (24-25) (24-25) (24-25) History of travel outside county of residence within 30 days of onset of symptoms?: 1 | | | | | | NO 9 Unk | Zip code: (51-59) 4. Sex: (60) 1 Male 9 Unk 2 Female |
| 5. Date of birth: (61-62) (63-64) | (mm/dd/yyyy) | 6. Race: (69) 1 White 2 Blace | е з | American Indian Alaskan Native Asian | 5 9 | Pacific Islander Not specified - A. phagocytophilum | 7. Hispanic 1 Yes ethnicity: 2 No |
| 8. Indicate Disease (Presumed) To Be Reported: (71) 2 Ehrlichiosis - E. chaffeensis 4 Ehrlichiosis - E. ewingii Undetermined | | | | | | | |
| 9. Was a clinically compatible illness present? If there is no presence of clinical lilness, then this is not a case. Clinical evidence - fever and one or more of the following: rash (primarily SFR), headache, myalgia, anemia, leukopenia (Ehrlich. & Anaplas.), thrombocytopenia, or elevated hepatic transaminases. Eschar (aka tache noire) or black, necrotic area around site of known/possible tick bite present? 1 YES 2 NO 9 Unk 1 YES 2 NO 9 Unk | | | | | | | |
| 11. Was an underlying immunosuppressive condition present? (81) 1 YES 2 NO 9 Unk Specify condition(s): Disseminated intravascular coagulopathy (DIC) 4 Renal failure 9 None 8 Other: | | | | | | | |
| 13. Was the patient hospitalized because of this illness? (83) (If yes, date) 1 YES 2 NO 9 Unk (84-85) (86-87) (88-91) (mm/dd/yyyy) 1 YES 2 NO 9 Unk (93-94) (95-96) (97-100) (mm/dd/yyyy) | | | | | | | |
| 15. Name of laboratory: City: State: Zip: Below, indicate Y (Yes) or N (No), ONLY if the test or procedure was performed. Lack of selection indicates that the test or procedure was not performed. | | | | | | | |
| 16. Serologic Tests | Serology 1 Titer COLLECTION DATE (101-2) (103-4) Positi | Serolo | qv 2* | O) (111-12) (113-16) Positive? | | 17. Other Diagnostic (Use#16, S1 for collection of PCR | Positive? |
| IFA - IgG IFA - IgM | () 1 YES 2 | - ' ' (|) 1 | YES 2 NO (118 | | Morulae visualizatio Immunostain | 1 YES 2 NO (135) |
| Other (121-130) test: | () 1 YES 2 | (|) 1 | YES 2 NO (120 YES 2 NO (132 | - I | * Visualization | 1 YES 2 NO (136) of morulae not applicable for SFR. |
| *Was there a fourfold change in antibody titer between the two serum specimens? 1 YES 2 NO (137) | | | | | | | |
| 18. Classify case BASED ON the CDC case definition (see criteria below): 1 SFR (including RMSF) 2 Ehrlichiosis - E. chaffeensis 3 Anaplasmosis - A. phagocytophilum 4 Ehrlichiosis - E.ewingii 5 Ehrlichiosis/Anaplasmosis - Undetermined 1 CONFIRMED 2 PROBABLE Title: Date: | | | | | | | |
| (139-148) COMMENTS: | | | | | | | |

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